

Case 73. 56-year-old male and 76-year-old male died as a result of a fall while installing a metal roof over the existing roof shingles on a barn.

On October 14, 2004, a 56-year-old male teacher and 76-year-old male bakery salesman were members of a 4-person work crew installing a metal roof over the existing roof shingles on a barn. The men had 2 years and 14 years experience re-roofing, respectively. They were installing 16-foot 6-inch long by 3-foot wide sheets of steel on the barn roof. Crew member #1 was going down a ladder and did not witness the incident. Crew member #2 was at the top of the sheet that was being installed. One of the victims was in the middle and the other victim was at the bottom of the sheet standing on a 19-foot high carpenters bracket scaffold. The scaffold work platform was approximately 68 feet long and 35 inches wide. The person at the top of the sheet had just started to put nails in the top of the sheet when he heard a noise and looked to see what was happening. He saw the two victims falling off of the scaffold to the concrete barnyard below. It appears that when the victim in the middle fell, he hit the second victim, causing them both to fall to the ground. Crewmember #1 attempted to call 911 from his cell phone but could not get a signal. He then drove to a nearby farm and had someone call 911. He returned and administered CPR until emergency response arrived. Both individuals were transported to area hospitals. Both were later pronounced dead at the hospital from massive internal injuries.

MIOSHA issued the following Serious and Other citations to the employer:

Serious:

GENERAL RULES, PART 1, Rule 114(1).

An employer shall develop, maintain, and coordinate with employees an accident prevention program, a copy of which shall be made available at the worksite.

Employer failed to develop a written accident prevention program and train the employees in the recognition and avoidance of hazards. Employees who are putting a new metal roof on an existing barn are exposed to hazards from:

1. No fall protection while installing shims and horizontal purlins, No fall protection while installing 16 feet 6 inch long by 3 feet wide sheets of steel roof sheeting.
2. No guardrails on scaffold that is 19 feet 2 inches above concrete. Carpenter scaffold brackets are not designed by a qualified person.
3. Ladder side rails do not extend above upper landing surface 3 feet.
4. Three employees are not wearing hard hats, and 4 employees are not wearing safety glasses.

Serious:

PERSONAL PROTECTIVE EQUIPMENT, PART 6, RULE 622(1).

A helmet, as prescribed in R408.40621, shall be used to protect the employee where a hazard or risk of injury exists from falling or flying objects or particles or from other harmful contacts or exposures.

No hard hats being work by three employees. Employees who are installing shims, purlins and steel roof sheeting are exposed to falling objects and other harmful contacts.

Serious:

FIXED AND PORTABLE LADDERS, PART 11, RULE 1124(5).

When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend not less than 3 feet (.9m) above the upper landing surface to which the ladder is used to gain access; or, when such an extension is not possible because of the ladder's length, then the ladder shall be secured at its top to rigid support that will not deflect and a grasping device, such as a grabrail, shall be provided to assist employees in mounting and dismounting the ladder. The side rails shall not extend in a manner that would permit ladder deflection under a load, by itself, to cause the ladder to slip off its support. The top of a non-self-supporting ladder shall be placed with the 2 rails supported equally, unless the ladder is equipped with a single support attachment.

Ladder side rails extended above upper landing surface approximately 18 inches. Employees who are accessing and egressing from scaffold are exposed to falls of 19 feet 2 inches.

Serious:

SCAFFOLDS AND SCAFFOLD PLATFORMS, PART 12, RULE R408.41210(1).

A scaffold shall be designed, constructed, erected, and used in accordance with the provisions of this part. A scaffold shall be designed by a qualified person.

Supporting bracket for carpenters bracket scaffold are not designed by a qualified person.

Serious:

SCAFFOLDS AND SCAFFOLD PLATFORMS, PART 12, RULE R408.41213(1).

A guardrail shall be installed on any open side or end of a scaffold work platform that is 10 (3.1 meters) or more feet above the floor or ground, except for any of the following:

- a) A boatswain's chair.
- b) A catenary scaffold.
- c) A float scaffold.
- d) A ladder jack scaffold.
- e) A needle beam scaffold.

The guardrail shall be as prescribed in R408.42150.

No guardrail installed on open sides and ends of the scaffold work platform. Work platform is approximately 68 feet long and 35 inches wide.

Serious:

FALL PROTECTION, PART 45, RULE 4502 REF OSHA 1926.501.(b)(11).
Each employee on a steep roof with unprotected sides and edges 6 feet (1.8m) or more above lower levels shall be protected from falling by guardrail systems with toeboards, safety net systems, or personal fall arrest systems.

No fall protections. Employees who are installing shims, purlins and steel roof sheeting are exposed to falls of 19 feet 2 inches from the roof eave to concrete below.

Other:

GENERAL RULES, PART 1, RULE 132(3).

A person who has a valid certificate in first aid training shall be present at the worksite to render first aid. A certificate is valid if the requirements necessary to obtain the certificate for first aid training meet or exceed the requirements of the United States Bureau of Mines, the American Red Cross, the guidelines for basic first aid training programs, or equivalent training.

No employee was on site with a valid certificate in first aid training.

Other:

PERSONAL PROTECTIVE EQUIPMENT, PART 6, RULE 624(1).

Face and eye protection, as prescribed in R408.40623, shall be used where a hazard or risk of injury exists from flying objects or particles, harmful contacts, exposures such as glare, liquids, injurious radiation, electrical flash, or a combination of these hazards.

No face and eye protection being used. Employees are hand nailing shims and purlins with 16d nails.

Other:

ACT 154 PUBLIC ACT OF 1974, RULE 4080.1061(1).

The employer did not report orally or in writing to the Bureau of Safety and Regulation within 8 hours after the occurrence of an employment accident or illness which was fatal to 1 or more employees or resulted in the hospitalization of 3 or more employees.

The employer failed to report orally or in writing to MIOSHA within 8 hours after the occurrence of the accident or illness which was fatal to 1 or more employees.